compared with PCV7 and PCV13. At price parity, PHiD-CV is cost-saving to PCV7 and PCV13 in Taiwan.

PIN48

PHARMACO-ECONOMICS OF ANTIBIOTICS

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OBJECTIVES: Antibiotics have made a significant contribution to improving patient health, but policy makers and health care payers are concerned about the costs of antibiotics in addition to their effectiveness. This study aims to assess the value of antibiotics by examining published incremental cost-utility ratios of antibiotics. **METHODS:** Evidence was derived from cost-utility analyses of antibiotics included in the Tufts-New England Center Cost-Effectiveness Analysis Registry through September 2009. For each cost-utility analysis, the following variables were examined: publication year, target population, intervention type, country of patient sample, disease classification, prevention stage, funding source, study perspective, discounting, sensitivity analysis, incremental cost-utility ratio, and methodological quality. Evidence of the value of antibiotics was summarized by calculating median incremental cost-utility ratios and frequency distributions. Associations between incremental cost-utility ratios on the one hand and the prevention stage, study perspective and methodological quality were examined by means of the Mann-Whitney U-test for ordinal variables. **RESULTS:** The analysis included 85 incremental cost-utility ratios from 23 cost-utility analyses. The findings showed that 38.8% of incremental cost-utility ratios related to dominant antibiotics; 45.9% referred to antibiotics that improved effectiveness, but also increased costs; and 15.3% related to dominated antibiotics. The median ratio was €748 per quality-adjusted life-year. Using threshold values of €20,000 per quality-adjusted life-year and €50,000 per quality-adjusted life-year, the probability that an antibiotic provides value for money was 64% and 67%, respectively. No statistically significant association was observed between incremental cost-utility ratios and the prevention stage ($p = 0.119$), study perspective ($p = 0.285$) or methodological quality ($p = 0.146$). **CONCLUSIONS:** The current evidence base suggests that the majority of antibiotics provide value for money.

PIN49

COST-EFFECTIVENESS OF PEGINTERFERON ALPHA-2A PLUS RIBAVIRIN FOR TREATING CRONIC HEPATITIS C VIRUS INFECTION COMPARED WITH NO TREATMENT IN MEXICO

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OBJECTIVES: Prevalence of hepatitis C virus infection is approximately 2.2–3.0% worldwide (130–170 million people). a persistent infection develops in up to 85% of these patients, leading to chronic hepatitis C (CHC), a condition associated with serious liver-related complications. We aimed to perform an economic evaluation of peginterferon alpha-2a (PEG-IFN alpha-2a) plus ribavirin (RBV). **METHODS:** We developed a Markov model with 40 annual cycles to project cumulative cost and quality-adjusted life-years (QALY) for two identical cohorts of patients aged 40 years. One cohort received PEG-IFN alpha-2a 180 mcg per week plus daily doses of 1200 mg of RBV during 48 weeks for genotype 1/4 or 24 weeks for genotype 2/3. The other cohort did not receive any antiviral treatment. The analysis was performed under the perspective of national public health care system. Only direct medical costs were accounted for; these included acquisition cost of antiviral drugs and medical attention for health states incorporated into the model. Costs (expressed in 2010 Euros) and QALY were discounted at an annual rate of 5%. Transition probabilities and utility scores were gathered from published literature and cost data was based on local sources and experts' opinion. **RESULTS:** Average discounted costs were estimated at €15,626 for PEG-IFN alpha-2a plus RBV and at €17,350 when no antiviral treatment is given to CHC patients, leading to overall savings of €1724 per patient. Without antiviral treatment, 9.9 QALY per patient are expected. There is a gain of 2.2 QALY for patients who are treated. Results are robust to variations in model parameters. PEG-IFN alpha-2a plus RBV was both more effective and less costly than no treatment in more than half of the simulations performed in a probabilistic sensitivity analysis. **CONCLUSIONS:** PEG-IFN alpha-2a plus RBV is a dominant strategy compared to given no antiviral treatment to CHC patients in Mexico.

PIN50

COST-EFFECTIVENESS OF PEGINTERFERON ALPHA-2A VERSUS PEGINTERFERON ALPHA-2B FOR TREATMENT OF CHRONIC HEPATTIS C INFECTION IN MEXICO

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OBJECTIVES: Prevalence of hepatitis C virus infection is approximately 2.2–3.0% worldwide (130–170 million people). A persistent infection develops in up to 85% of these patients, leading to chronic hepatitis C (CHC), a condition associated with serious liver-related complications. Current standard of treatment includes Peginterferon (PEG-IFN) alpha plus ribavirin (RBV). We aimed to compare two different options of PEG-IFN alpha. **METHODS:** We developed a Markov model with 40 annual cycles to project cumulative cost and quality-adjusted life-years (QALY) for two identical cohorts of moderate CHC patients without cirrhosis aged 40 years. One cohort received PEG-IFN alpha-2a 180 mcg per week and the other received PEG-IFN alpha-2b 1.5 mcg/Kg weekly, both combined with daily doses of 1,200 mg of RBV during 48 weeks for genotype 1/4 or 24 weeks for genotype 2/3. The analysis was performed under the perspective of national public health care system. Only direct medical costs were accounted for; these included acquisition cost of antiviral drugs and medical attention for health states incorporated into the model. Costs (expressed in 2010 Euros) and QALY were discounted at an annual rate of 5%. Transition probabilities and utility scores were gathered from published literature and cost data was based on local sources and experts' opinion. **RESULTS:** Average discounted costs were estimated at €16,854 for PEG-IFN alpha-2a plus RBV and at €18,247 for PEG-IFN alpha-2b plus RBV, leading to overall savings of €1,393 per patient when PEG-IFN alpha-2a is used. Discounted QALY were 12.29 for PEG-IFN alpha-2a and 12.17 for PEG-IFN alpha-2b. Results are robust to variations in model parameters. **CONCLUSIONS:** PEG-IFN alpha-2a plus RBV is a dominant strategy compared to given PEG-IFN alpha-2b treatment to CHC patients in Mexico.

PIN51

UPDATING THE COST-EFFECTIVENESS OF ROTAVIRUS VACCINATION IN THE NETHERLANDS

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OBJECTIVES: To investigated the most important factors responsible for the large differences in previously estimated cost-effectiveness ratios and to update the cost-effectiveness of rotavirus vaccination in the The Netherlands applying assumptions resulting from 2 consensus meetings with national and international experts in the field, from academia, clinical environments, industry and health policy. **METHODS:** We constructed a decision analytic model to compare the expected net costs and health benefits over a period of 5 years in two hypothetical cohorts of 180,000 children (approximating the Dutch birth cohort), one being vaccinated and one unvaccinated. The base-case analysis reflected the most likely—but also overall conservative—estimate of cost-effectiveness from the societal perspective. Robustness of the base-case result was investigated in sensitivity and scenario analyses. **RESULTS:** In the base-case analysis, it was estimated that approximately 59,495 RVGE cases would occur, resulting in 11,453 GP visits and 3,238 hospitalizations. With vaccination, approximately 34,000 cases of RVGE cases are averted corresponding to a total QALY gain of 167. Assuming a total cost of vaccination of €75, vaccination would result in cost-effectiveness of €30,540 per QALY gained (€152 per case averted). Results were sensitive to the number of deaths due to RVGE, inclusion of potential herd protection, inclusion of QALY decrements of care givers, further potential tender price reduction and the exact discount rate used. **CONCLUSIONS:** Our economic analysis indicates that a potential national immunization programme against rotavirus can be considered cost-effective if applying a threshold of €50,000 per QALY for the The Netherlands.

PIN52

AN ECONOMIC EVALUATION OF RALTEGRAVIR FOR THE TREATMENT OF ANTIRETROVIRAL-NAIVE HIV-1 INFECTED PATIENTS IN HUNGARY

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OBJECTIVES: Raltegravir (Merck & Co., Inc.) is an inhibitor of HIV type 1 (HIV-1) integrase, and is the first drug in a new class of therapy known as the integrase inhibitors. Raltegravir has already shown to be cost-effective in HIV treatment experienced patients in Hungary. The objective of the current study is to assess if the first line use of raltegravir is cost-effective compared to its use in rescue therapy from the Hungarian public payer perspective. **METHODS:** First line use of raltegravir was evaluated versus a protease inhibitor (PI) using a Markov model. Raltegravir was also included as a 3rd line therapy within the model arm that initiates on a PI. The Markov process comprised a three stage continuous-time model representing successive HIV therapies over a patient's life-time. Patients moved between 18 health states—based on CD4 and HIV RNA levels. Patients progressed to the next stage after they either failed current therapy or discontinued for toxicity reasons. At any time, patients could develop acquired immunodeficiency syndrome (AIDS), suffer from a coronary heart disease (CHD) event and/or experience other adverse events. Mortality was also captured in the model. **RESULTS:** The incremental cost-effectiveness ratio (ICER) for initiating therapy with raltegravir versus using it as a rescue therapy was 4,075 million HUF per quality adjusted life-year gained (QALY), equivalent to $16,830/QALY. The model predicted lower cumulative incidence of CHD in the raltegravir arm versus the PI arm. (15.1% versus 16.1%). The model predicted that patients initiating on raltegravir therapy have longer life expectancy than patients starting with PI treatment over a 50-year time horizon (18.74 versus 17.17 years). **CONCLUSIONS:** Our long term economic model suggests that it is cost-effective to use raltegravir early in HIV therapy versus in patients who have experienced multiple failures.